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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/890,075	07/26/2001	Hideo Fujii	L9289.01162	5897

7590 01/05/2005

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EXAMINER

GHULAMALI, QUTBUDDIN

ART UNIT	PAPER NUMBER
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2637

DATE MAILED: 01/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/890,075

Applicant(s)

FUJII ET AL.

Examiner

Qutub Ghulamali

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 7-12 is/are rejected.
- 7) ☒ Claim(s) 3, 4, 5, 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 07/26/2001.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Specification

1. Claim 1 is objected to because of the following informalities: Claim 1, line 7, insert after "spread" --;--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1, 5-12 recites the limitation "the frequency" in lines 13, 17, 15, 14, 13, 14, 13, 7-8, 6 respectively. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 7-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawahashi et al (US Patent 5,898,665) in view of Shohara (US Patent 6,463,266).

Sawahashi disclose a CDMA communication receiving system comprising: a generator for generating replica signal (fig. 3A, element 300) by spreading a known signal (pattern) with a

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spreading code while sequentially rotating a phase of the spreading code by a predetermined phase rotation amount (col. 3, lines 23-34), the spreading code being the same series as a spreading code with which a known signal part in a received signal is spread (col. 3, lines 35-47) a calculator for calculating a correlation value between said known signal part and said replica signal (col. 3, lines 48-50);

a detector for detecting the phase rotation state from calculated correlation values (col. 3, lines 51-56). Sawahashi however, does not explicitly show, a carrier generator for generating a carrier by varying the frequency when the size of detected phase rotation is outside a permissible range.

In the same field of endeavor, Shohara disclose a carrier generator (figs. 5-6, element 62) for generating a carrier by varying the frequency (adjusts VCXO) when the size of detected phase rotation is outside a permissible range (col. 18, lines 16-23, 56-65). It would have been obvious to one skilled in this art at the time the invention was made to use VCXO as a carrier generator for generating a carrier when the size of detected phase rotation is outside a permissible range (phase rotator exceeds a predetermined frequency range) as taught by Shohara in the system of Sawahashi so as to maintain the frequency offset within specified operating limits.

Allowable Subject Matter

6. Claims 3, 4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the *limitations of the base claim* and any *intervening claims*.

7. Claims 5, 6 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patents:

Dohi et al (US Patent 5,638,362) discloses a correlation detector for high accuracy tracking in a CDMA receiver.

Ohgoshi et al (US Patent 6,292,477) shows a CDMA system comprising a VCO for supplying a carrier to permit stable reception with minimum bit error.

Bruckert et al (US Patent 5,640,431) discloses a method and apparatus for offset frequency estimation for a coherent receiver.

Ling et al (US Patent 6,363,102) showing method and apparatus for frequency offset correction.

Sih et al (US Patent 6,208,292) discloses an apparatus for performing improved position location with low tolerance oscillator in a wireless communication system.

Wang (US Patent 6,404,758) shows a system and method for achieving synchronization in the presence of large initial frequency errors.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qutub Ghulamali whose telephone number is (571) 272-3014.

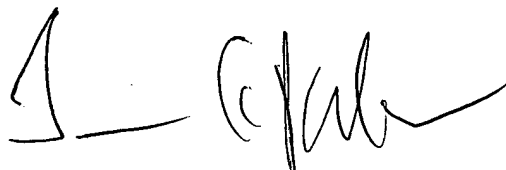
The examiner can normally be reached on Monday-Friday from 8:00AM - 5:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

QG.
January 3, 2005.



JAYANTI PATEL
SUPERVISORY PATENT EXAMINER